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FIELD NATURALISTS' CLUB OF VICTORIA.

THE monthly meeting of the Club was held at the Royal Society's Hall on Monday evening, 8th September.

The president, Mr. C. A. Topp, occupied the chair, and about

fifty members and visitors were present.

A letter was read from the Premier, stating that it was the intention of the Government to reserve land along the Yarra when the Kew Asylum grounds were sold, though not a strip of the width proposed by the Club. As it was stated that there was no immediate prospect of the land being sold, further discussion of

the matter was postponed.

The hon. librarian reported the following additions to the Club's library:—"Mining Reports," June, 1890, from the Secretary for Mines; "Catalogue of Queensland Plants," from the author, Mr. F. M. Bailey, F.L.S.; "Catalogue of Minerals," from English and Co., Philadelphia; "Proceedings of the Royal Geographical Society of Australasia" (Victorian Branch), vol. viii., part 1, from the society; "Journal of the Bombay Natural History Society," v., 2–4, from the society; "Journal of the New York Microscopical Society," vi., 3, from the society; "Journal of Pharmacy," August, from the editor; "Birds of Australia," i., 5, purchased; "Catalogue of Recent Marine Bryozoa," by E. C. Jelly, purchased.

On a ballot being taken, Mr. Peyton Jones, Master Loftus, E. P. Jones, Master Lewis, T. Jones, and Mr. F. H. Reed were

elected members of the Club.

Mr. Wisewould moved that a sub-committee, consisting of Misses Cochrane, Halley, Coghill, and Roberts, and Messrs. Tisdall, Barnard, French, and Best, be appointed to make the necessary preparations for the annual show of wild flowers. The motion was seconded by Mr. C. Frost, and carried.

PAPERS READ.

A paper by Mr. C. French, F.L.S., entitled "A Run Through the Heath Ground from Oakleigh to Sandringham," was read by Mr. Best. The excursion described was made on 30th August, and, considering the time of year, was very successful, no less than twelve orchids being obtained in bloom. The most important find, however, was the Club Moss, *Lycopodium laterale*. Besides the plants many insects and birds of interest were noticed.

The route taken was south from Oakleigh station to near Cheltenham, thence across to the sea at Beaumaris, and back along

the coast to Sandringham.

The Rev. G. D. Hutton read a paper on "Mimicry," in which he described how the colours of animals have been shown in very many cases to be of service to their possessor, either as a means of concealment, whether for offence or defence, or in some few instances, especially of insects, to serve as a warning to their foes that they are possessed of disagreeable or dangerous qualities. The writer concluded by impressing on the Club the necessity for careful examination of the colours of Australian insects.

In a short discussion which followed, and in which Messrs. Keartland, Le Souef, and Barnard and the President took part, some instances of protective coloration in the native fauna were

mentioned.

Mr. T. Steel read a description of a kerosene emulsion which he had used with much success for killing scale insects and other pests.

Mr. Scott showed some sulphur which had been collected from the edges of pools after a storm at Williamstown, and which he

believed to have been deposited from the rain.

The following were the principal exhibits: -By Mr. Ernest Anderson.—European Lepidoptera introduced into Victoria viz., Pyralis farinalis (the Meal Moth), Plutella cruciferarum (the Tinea of the cabbage), Tinea rusticella, Carpocapsa pomonella (Codlin Moth), Tinea sapetzella (Clothes Moth), Endrosis fenestrella, Agrotis saucia (Sword-grass Moth). By Mr. F. G. A. Barnard.—Pitta from the Richmond River, N.S.W. Mr. C. French, jun. - Eggs of Ternlet (Sternula nereis), from South Australia. By Mr. G. A. Keartland.—Egernia cunninghami, Skink Lizard, and Chelodina longicollis (Long-necked Tortoise) and eggs. By Mr. Geo. Lyell, jun.—Micro-Lepidoptera, taken and bred during the month of August. By Baron von Mueller.—New Eucalyptus, E. Bauerleni, from Sugarloaf Mt., on the Clyde River, N.S.W.; also hybrid Eucalyptus Maculato corymbosa, from the same locality, collected by W. Bauerlen. By Mr. Wing.—Fossiliferous formation containing Encrinites, &c., from a drive at the Victoria Brewery at a depth of 100 feet.

After the usual conversazione the meeting terminated.

KEROSENE EMULSION FOR FRUIT TREES.—The following recipe was given in the New Zealand Weekly Herald:—" ½ lb. hard soap boiled in 1 gal. water. To each gallon of above, when nearly cool, but still liquid, add 2 gals. kerosene, and churn well by stirring or mixing with spray pump until cool. When required for use dilute each one part with ten parts of water and spray the affected trees thoroughly."

A RAMBLE THROUGH THE HEATH-GROUND FROM OAKLEIGH TO SANDRINGHAM.

By C. French, F.L.S.

(Read before the Field Naturalists' Club of Victoria, 8th September, 1890.)

Early spring, more especially to those who love flowers, has a peculiar attraction for the field naturalist, whether he remains near home or elects to go further afield. Be this as it may, the writer of these few notes, on Saturday morning, the 30th August, 1890, decided upon making a short walking excursion to the heath ground, the plan agreed upon being to take the early morning train to Oakleigh, and from there walk across to Cheltenham township, on to Beaumaris, and from thence to Sandringham, the two latter places being settlements on the shores of Port Phillip Bay, and formerly known as Gipsy Village and Beaumaris respectively. Starting from the South Yarra railway station, in company with my son, we soon reached Oakleigh, a station about ten miles from Melbourne, on the main Gippsland line of railway. The weather looked somewhat threatening, and we had our waterproofs with us, which, as we afterwards had occasion to find out, was an unnecessary precaution, for the day turned out to be beautifully fine, the sun having emerged from his hiding place and now shone with brilliancy. Leaving Oakleigh and steering in a southwesterly direction, between hedges of Acacia armata, which were loaded with fragrant flowers, and passing near the house where Power, the once well-known bushranger, now lives, we soon came on to the heath-ground; and here we found many old favourites—a fine pair, male and female, of the Flame-breasted Robin being perched on a fence within a few yards of us, and seemed to be quite at home, and appeared to be utterly oblivious of the presence of field naturalists. The well-known call of the Harmonious Thrush was also heard here, whilst our youthful oologist kept a sharp look-out for nests, peering into dark and uncannylooking places in the thickest of the furze (Ulex), which, although so pretty, has become quite a scourge to the owners of land in this and similar districts around Melbourne. It may not be out of place to mention that those of us who like to see the old English plants in Victoria can procure a double form of the furze quite as beautiful as the single one, but which does not seed; so, consequently, it cannot spread. The Epacrids, some of which have been in bloom for some months, are now at their best. Epacris impressa, with its charming variety of colours, varying from the purest white to crimson, is to be found here in quantity, although the coloured varieties are evidently becoming scarcer on account of being gathered by children and others. Sprengelia incarnata, with its singular blooms and prickly stem, is now in full flower, and we gather some for the table. The head

of a sheep, which had probably lain unobserved for some time. upon dissection, afforded us some larvæ of Onthophagus kershawi, a well-known beetle which burrows in the sandy ground around Brighton, Oakleigh, and elsewhere. The larva of this curious beetle is black, and not unlike a gigantic Woodlouse; the perfume emitted by the larvæ of the former insect being the reverse of invigorating. Some years ago, if my memory serves me rightly, our worthy President read a paper entitled "Life on an Old Rail." It is not my intention to write a chapter having for its title "Life on (or in) a Sheep's Head;" but I may state that, before leaving the head, we found specimens of nematode worms, crickets, also some beetles belonging to the Necrophori, or carrion-eaters. Our old friend. Staphylinus erythrocephalus (a beetle allied to the so-called "Devil's Coach Horse" of England), some smaller Staphylinds, ants, also many other minute insects, all of which were bottled up for future reference. Near here were also found the handsome

caterpillars of the Banksia Moth (Danima banksia).

Travelling along in the direction of Cheltenham, "dodging" market gardens as we went along (the days for making "bee-lines" in these districts being passed), we came on a damp flat in which grew great numbers of the Swamp Oak. Viminaria denudata, Hakeas, Leptospermum, Malaleuea squarrosa, and M. ericifotia, dwarf Banksias, and other shrubs. It was here that we found plants (out of flower) of the curious little orchid, Corysanthes unguiculata, which, when my companion a few months since discovered it growing and in flower, was new to Victoria, and even unknown to most botanists. The finding of this orchid has afforded Baron von Mueller great pleasure, as he is now able to supply museums with an orchid which very few people had previously seen. This locality seems rich in plants; and, on the edge of the ditch, grew fine specimens (18 inches in length) of Lycopodium laterale, a plant which I had thought to be long extinct in this district. Schizæa fistulosa is also here, Lindsæa, Ophioglossum, and the common Pteris aquilina (var. esculenta), being about the only ferns to be found here, if we except, perhaps, Gleichenia, which grows in many places on damp, springy heath-soil. Since our last visit to this district, the rain must have fallen heavily, many of the scrubby Melaleuca flats being under water, which we paddle through, jumping from tussock to tussock of Gahnia and other rush-looking plants. Upon examining the pools of water we found many plants of Myriophyllum, Mimulus, Ranunculus, with Tadpoles, Dytiscidæ, and other aquatic insects. Luzula and other small Cyperaceæ also grew near to the water's edge. In passing many abandoned orchards (the result chiefly of the late land-boom), the trees were found to be swarming with insects, scale, moth, as also lichens, and the estimate which, at my request, has been

prepared, that there are 500 acres of neglected and abandoned orchards within a radius of ten miles of Melbourne, is, I feel certain, greatly below the mark. Skirting a formidablelooking swamp, we found ourselves obliged to cross the headland of a market garden in which grew splendid cabbages and cauliflowers; and, upon questioning the owner (who was accosted, partly as an apology for our having entered his garden without permission), we were informed that the cabbages would have to "lie there and rot," as there were "no ships" to take them away—another incident of the strike. Having parted with our good friend the market gardener, we turned south again, following an old track, and it was here that a Bronzewing Pigeon flew past us. Birds seemed fairly numerous, the Wattled Honey-eaters, Australian Minah, Crow Shrikes, and others being frequently seen during the morning. A very pretty watercourse, the bank of which is clothed with low Honevsuckle (Banksia) afforded us an hour's good amusement, the trees being badly attacked by grubs of both moths and longicorns, and "cut boughs," so well known to field entomologists as the abode of that very elegant beetle, Uracanthus triangularis, were also seen, and some of the smaller Banksias were badly attacked by a black scale insect which has been determined as a new species of Lecanium.

The gum trees hereabouts seemed to be suffering very much from the attacks of the larvæ of the common saw-fly, whilst the singular looking lumps or excrescences which could be seen on many young gum saplings are doubtless caused by the singular insects belonging to the Brachyscelidæ. A black micro-fungi (possibly closely allied to Capnodium citri) was found attendant, as usual, upon the leaves of the Banksia and other plants on which scale-insects of several kinds had fastened themselves. was now getting towards noon, so we camped and had lunch, which necessary proceeding was not the least enjoyable part of the programme. Lunch over, we again struck into the heathground proper, passing on our way quantities of plants (many of them being old favourites), as Bossica cinerea, Aotus villosus, Drosera whittakeri and D. peltata, Sprengelia, orchids Pterostylis cucullata, P. curta, and a solitary specimen of P. aphylla, while that curious fern, Schizaa bifida, was more plentiful than we had ever seen it before, Acacia oxycedrus and Styphelia virgatus being at their best. Passing through some abandoned market gardens, on the surface of which were lying huge preserving melons and, must we confess it, some very hot and tough radishes, and once more in the open, we pushed on towards Cheltenham, and about here we noticed that beautiful but shy bird, the Little Grass Bird (Spheneacus gramineus). We next came to an old road now barely perceptible, but which I at once recognized as the old road between Dandenong and Cheltenham,

and as I had not seen this road before for close upon thirty-five years, it is to me, at least, a pleasant reminder of old times when surveyors' pegs were few and the land-boomer was not. It was near this place that we came across a swamp, in which was erected a sign-post informing us that we were in "Seaview-street." We climbed along the "street" on an old fence, and soon got out of the water and on to higher ground. The pretty orchid Lyperanthus nigricans grew here in thousands, and as these were just showing for flower, a visit in about another month's time would amply repay both time and trouble, the plants of this orchid being spread over a space of about fifty vards, the whole of the surface being covered like a carpet with the leaves of this beautiful plant, and never before had we seen them so plentiful. Cheltenham is now reached, and after a refresher at the hotel (built early in 1855), we start off towards the sea coast, passing on our way the former buildings of many of the old identities of these parts, whose worldly prospects have many of them been vastly improved by the fabulous prices paid for the land by the land-boomers, and these places are now "in rack and ruin," and will probably remain so until the Government step in, and, in justice to the orchardists, compel the owners to either clean or destroy these neglected trees. On the hill sides, the lovely little Euphrasia brownii, Hovea heterophylla, the trailing Kennedya, with its bright red blooms, are in flower, but a long and patient search failed to bring to light any specimens of that morphological curiosity, Phylloglossum drummondii, the month of August being too early in the season for it, and the tiny species of Stylidium and Polypompholyx.

As we approach the coast, near the Great Southern Hotel, which is situated just above the well-known "fossil beds," the vegetation changes, large patches of Muehlenbeckia, beach Ti-Tree (Leptospermum laevigatum), some salt bushes, the arborescent Styphelia Richei, and the well-known Coast Honeysuckle (Banksia integrifolia) are everywhere to be seen; and close alongside the very picturesque tram line which runs between Cheltenham and Sandringham were found large Myoporums, Alyxia, Lasiopetalum, Corræa, and other coast plants, with Bryum and other mosses; also, some lichens, fungi, and Jungermanniæ. Following along through the dense belts of Ti-Tree a sharp look-out was kept for the nests of Honey-eaters (Meliphagidæ), some kinds of which pretty birds are now laying; but although we found many old nests, none of this season's building were seen, leading us to suspect that we were too early for them. Amongst the undergrowth quantities of the orchids Pterostylis pedunculata, P. curta, P. nutans, and P. concinna were seen, and nearer Sandringham a few early-flowering specimens of

Caladenia deformis were collected. To enumerate even a tithe of what we saw in the way of small fungi, as Agarics, pretty Clavarias, and others, as also the numerous sedges, mosses, and other small plants, would be to furnish a list far too long for a paper of this kind. In a paddock formerly belonging to the late Sir Charles Ebden, and long known as Ebden's Paddock, was found a very singular-looking eucalyptus, on which was a scale insect quite new to the writer of these notes, and the identification of the gum my friend Mr. Luehmann has promised to ascertain for me from the Baron. In this paddock grow many large trees of the common wattle (Acacia decurrens), nearly all of which are badly infested with insects of many kinds, as the larvæ of moths, longicorns and other beetles, some specimens of which were secured for the Government collection of economic entomology now in the course of preparation. On the way to Sandringham quantities of the Sweet-scented Acacia (Acacia suaveolens) were seen in full bloom, and also the dwarf and local variety of Acacia juniperina. Pimelea octophylla and phylicoides were also plentiful and in flower. The appearance of surveyors' pegs indicated that we were close to the new railway township of Sandringham; so, after adding to our treasures in the shape of a few sprigs of Epacris, Daviesia ulicina, &c., we made for the railway station. Insects were scarce, only a few beetles, Diptera, Neuroptera, and Hymenoptera, being taken, in addition to the scale insects alluded to previously; and although we tramped about fifteen miles, no snakes were seen, but persons so travelling should be cautious, as several of these reptiles have been seen within the last two months in this and the Oakleigh district. The number of orchids seen in flower was 12-not so bad for the month of August. We reached home about 6.30 p.m., having had a most enjoyable day's outing amongst the heath-grounds.

CORRESPONDENCE.

To the Editor of the Victorian Naturalist.

SIR,—As some of my remarks on Australian teal were apparently somewhat incomplete, I would like to state, in reply to Mr. Thos. Campbell, that I only heard of two chestnut-breasted birds being shot at King Island, and only saw one myself. During the trip of the first party down the west coast, a number of the sombre birds were seen, and some half-dozen were shot. I had the opportunity of dissecting five. Four proved to be adult males, so that any doubt as to their being females of the chestnut-breasted variety is cleared away.—Yours, &c.,

G. A. KEARTLAND.

North Carlton, 6th September.